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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|-----------------------|------------------------------|------------------|
| 09/917,235 | 07/30/2001 | Jeffrey D. Van Heumen | DC01 (13202-00314) 412047 | 8954 |
| 27160 | 7590 | 06/29/2006 | EXAMINER COONEY, JOHN M | |
| PATENT ADMINISTRATOR KATTEN MUCHIN ROSENMAN LLP 1025 THOMAS JEFFERSON STREET, N.W. EAST LOBBY: SUITE 700 WASHINGTON, DC 20007-5201 | | | ART UNIT 1711 | PAPER NUMBER |
| DATE MAILED: 06/29/2006 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/917,235

Applicant(s)

VAN HEUMEN ET AL.

Examiner

John m. Cooney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-65 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-65 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 6-14-06 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-65 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the dendritic macromolecules particularly defined in the referenced copending US patent application S.N. 60/221,512, does not reasonably provide enablement for all dendritic macromolecules or the absence of the dendritic macromolecules particularly defined in the referenced copending US patent application S.N. 60/221,512. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims. Applicants' supporting disclosure is not enabling for all dendritic macromolecules. Applicants' supporting

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disclosure does not provide enablement for practice of the full scope of the instant claims as they are now recited without undue experimentation being required. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404.

Applicants' additionally defined components in their claims do not serve to define the dendritic macromolecules of applicants' claims but rather behaviors of the combinations of components or behaviors when the macromolecules are not present. Undue experimentation would be required in determining what combinations of polyether polyols and dendritic macromolecules and/or other materials would be included or excluded by the claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Falke et al.(6,316,514) in view of Hawker et al.(6,114,458).

Falke et al. discloses the preparation of polyurethane foams prepared from isocyanates, polyols, blowing agents, and other additives and modifier (see the entire document). Falke et al. differs in that it does not employ the dendritic macromolecules

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identified by applicants' claims as an additional component. However, Hawker et al. discloses the employment of the dendritic macromolecules of applicants' claims in urethane foam synthesis for the purpose of imparting their viscosity modifying effect (see column 7 lines 56 et seq., and claim 16, as well as, the entire document).

Accordingly, it would have been obvious for one having ordinary skill in the art to have utilized the dendritic macromolecules of Hawker et al. in the polyurethane foam preparations of Falke et al. for the desired effect of imparting viscosity modification to the reactive mixtures in order to arrive at the compositions and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

The following arguments from the previous Office action are maintained again herein:

Applicants' latest arguments have been considered, but rejection is maintained for the reasons set forth above and the reasons to follow stated again below from the Final Rejection set forth 6-17-03.

While the paragraph number 23 adequately defines "dendritic macromolecule" sufficiently allow for it to be used as a claim limitation, it is not seen that its employment is limiting of the claims to the sub-group of dendritic macromolecules discussed in paragraph number 24. Accordingly, examiner's rejection is maintained as proper, and applicants' showing of results is not commensurate in scope with the scope of the claims as they currently stand.

Additionally:

Examiner agrees and adds that "dendritic" as a term of art is generally understood to the ordinary practitioner to mean tree-like or highly branched, and a "macromolecule" is generally understood to be a large or complex molecule of molecular weights generally exceeding 1000. Accordingly, "dendritic macromolecules" are understood by an ordinary practitioner to be large or complex molecules having

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tree-like or highly branched structures. Applicants' specification is not seen to give this term any further meaning in a patentable sense in its use in the present claims.

Paragraphs 23 and 24 of applicants' supporting disclosure are, furthermore, seen to support examiner's position regarding this terms meaning in the instant case. Paragraph 23 states "dendritic macromolecules" to be "generally known in the art". The paragraph then recites "examples" of these generally known species (i.e. representatives of a group). This description even if taken alone does not even limit the term "dendritic macromolecules" to those dendritic macromolecules identified by the referenced patents at the end of paragraph 23, because applicants clearly recite that these are only examples of the larger generally art known group of molecules which make up dendritic macromolecules.

Further, applicants continue in paragraph 24 to recite that the present inventors have "discovered that a subgroup of dendritic macromolecules" are useful in achieving their endeavor. "Sub-group" is clearly understood by all in the art to mean a group which is subordinate in order, and, in the instant case, if not in all, smaller in number. Accordingly, this paragraph clearly recites that the dendritic macromolecules of applicants' concern, those defined in copending US patent application S.N. 60/221,512, and those which applicants are alleging to be defined by the claim term "dendritic macromolecule" in the instant claims are a subordinate group of the larger group of molecules defined by the term "dendritic macromolecules". Hence, without the specification reciting a meaning to the contrary, the term "dendritic macromolecule" is taken to mean a large or complex molecule having tree-like/highly branched structure of a molecular weight greater than about 1000. Applicants' supporting disclosure lacks further definition of this term to limit the interpreted scope in its instant use to anything less than this broad meaning.

Finally, copending US patent application S.N. 60/221,512's disclosure has been incorporated by reference in the instant application. Its disclosure may be used to define applicants' dendritic macromolecules in the claims, but the limitations would also need to be inserted into the specification at the appropriate location.

Applicants' most recent arguments have been considered but do not refute the arguments set forth above. Examiner disagrees with applicants' position that the term "dendritic macromolecule" has been defined by applicants' supporting disclosure to have the meaning suggested in applicants' remarks. For this and all of the reasons set forth, again, above, examiner maintains the above rejections under 35 USC 112 1st paragraph and 35 USC 103 to be proper and appropriately maintained.

Applicants' latest arguments in regards to this rejection have been considered, but rejection is maintained for the reasons set forth above. Examiner holds that

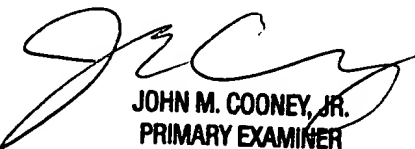
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applicants' latest arguments are held to be fully addressed in the arguments made in the rejections set forth above and restated arguments set forth above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JOHN M. COONEY, JR.
PRIMARY EXAMINER
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